

f1390 REV. 5-93) US DEPT. OF COMMERCE PATENT & TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER
109854

**TRANSMITTAL LETTER TO THE
UNITED STATES
DESIGNATED/ELECTED OFFICE
(DO/EO/US) CONCERNING A FILING
UNDER 35 U.S.C. 371**

U.S. APPLICATION NO.
(if known, sec 37 C.F.R.1.5)**09/868329**INTERNATIONAL APPLICATION NO.
PCT/FR00/03084INTERNATIONAL FILING DATE
November 6, 2000PRIORITY DATE CLAIMED
November 8, 1999TITLE OF INVENTION
DEVICE FOR FIXING A MANIFOLD FOR FLUID DISTRIBUTIONAPPLICANT FOR DO/EO/US
Michel BRUVRY

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. has been transmitted by the International Bureau.
 - c. is not required, as the application was filed in the United States Receiving Office (RO/US)
6. A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. have been transmitted by the International Bureau.
 - c. have not been made; however, the time limit for making such amendments has NOT expired.
 - d. have not been made and will not be made.
8. A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. A FIRST preliminary amendment.
 - A SECOND or SUBSEQUENT preliminary amendment.
14. A substitute specification.
15. Entitlement to small entity status is hereby asserted.
16. Other items or information:

| | | | | | |
|--|--|---------------------------------|------------|----|--|
| U.S. APPLICATION NO. (if known, see 37 C.F.R. 1.5) 09/868329 | INTERNATIONAL APPLICATION NO. PCT/FR00/03084 | ATTORNEY'S DOCKET NUMBER 109854 | | | |
| 17. <input checked="" type="checkbox"/> The following fees are submitted: | | CALCULATIONS | | | |
| Basic National fee (37 CFR 1.492(a)(1)-(5)): | | PTO USE ONLY | | | |
| Search Report has been prepared by the EPO or JPO \$860.00 | | | | | |
| International preliminary examination fee paid to USPTO (37 CFR 1.482) \$690.00 | | | | | |
| No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) \$710.00 | | | | | |
| Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$1,000.00 | | | | | |
| International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) \$ 100.00 | | | | | |
| ENTER APPROPRIATE BASIC FEE AMOUNT = | | \$860.00 | | | |
| Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)). | | \$ | | | |
| <input checked="" type="checkbox"/> Claims | Number Filed | Number Extra | Rate | | |
| Total Claims | 15 - 20 = | 0 | X \$ 18.00 | \$ | |
| Independent Claims | 3 - 3 = | 0 | X \$ 80.00 | \$ | |
| Multiple dependent claim(s)(if applicable) | | + \$270.00 | \$ | | |
| TOTAL OF ABOVE CALCULATIONS = | | \$860.00 | | | |
| Reduction by 1/2 for filing by small entity, if applicable. | | - | \$ | | |
| SUBTOTAL = | | \$860.00 | | | |
| Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 month from the earliest claimed priority date (37 CFR 1.492(f)). | | \$ | | | |
| TOTAL NATIONAL FEE = | | \$860.00 | | | |
| | | Amount to be refunded | \$ | | |
| | | Charged | \$ | | |
| a. <input checked="" type="checkbox"/> Check No. <u>120067</u> in the amount of <u>\$860</u> to cover the above fees is enclosed. | | | | | |
| b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$_____ to cover the above fees. A duplicate copy of this sheet is enclosed. | | | | | |
| c. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. <u>15-0461</u> . A duplicate copy of this sheet is enclosed. | | | | | |
| NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status. | | | | | |
| SEND ALL CORRESPONDENCE TO: OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, Virginia 22320 | | | | | |
|  NAME: William P. Berridge REGISTRATION NUMBER: 30,024 | | | | | |
| Date: <u>June 18, 2001</u> NAME: Thomas J. Pardini REGISTRATION NUMBER: 30,411 | | | | | |

09/868329

JC03 Rec'd PCT/PTO 18 JUN 2001
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Michel BRUVRY

Application No.: U.S. National Stage of
PCT/FR00/03084

Filed: June 18, 2001 Docket No.: 109854

For: DEVICE FOR FIXING A MANIFOLD FOR FLUID DISTRIBUTION

PRELIMINARY AMENDMENT

Director of the U.S. Patent and Trademark Office
Washington, D. C. 20231

Sir:

Prior to initial examination, please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace claims 3 and 5 as follows:

3. (Amended) Clamp according to Claim 1, characterized in that it comprises a pivoting screw (12) and, opposite this pivoting screw, a fixed clamping tab (8).

5. (Amended) Double clamp, characterized in that it is in the form of a bent metal strip (4), at the two ends of which is a clamp according to Claim 1.

Please add new claims 12-15 as follows:

--12. Clamp according to Claim 2, characterized in that it comprises a pivoting screw (12) and, opposite this pivoting screw, a fixed clamping tab (8).--

--13. Double clamp, characterized in that it is in the form of a bent metal strip (4), at the two ends of which is a clamp according to Claim 2.--

--14. Double clamp, characterized in that it is in the form of a bent metal strip (4), at the two ends of which is a clamp according to Claim 3.--

--15. Double clamp, characterized in that it is in the form of a bent metal strip (4), at the two ends of which is a clamp according to Claim 4.--

REMARKS

Claim 1-15 are pending. By this Preliminary Amendment, claims 3 and 5 are amended to remove multiple dependencies. Claims 12-15 are added to compensate for the material deleted from claims 3 and 5. Prompt and favorable examination on the merits is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. 1.121(c)(1)(ii)).

Respectfully submitted,



William P. Berridge
Registration No. 30,024

Thomas J. Pardini
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WPB:TJP/kaf

Attachment:
Appendix

Date: June 18, 2001

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

| |
|--|
| DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461 |
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APPENDIX

Changes to Claims:

The following are marked-up versions of the amended claims:

3.(Amended) Clamp according to ~~either of Claims 1 and 2~~ Claim 1, characterized in that it comprises a pivoting screw (12) and, opposite this pivoting screw, a fixed clamping tab (8).

5. (Amended) Double clamp, characterized in that it is in the form of a bent metal strip (4), at the two ends of which is a clamp according to ~~one of Claims 1 to 4~~ Claim 1.

Claims 12-15 are added.

Clamp for a manifold for fluid distribution

The present invention relates to a clamp for a manifold for fluid distribution. It also relates to a manifold
5 that can be clamped with the aid of a clamp according to the invention.

The fields to which the invention relates are essentially the following fields: hot and cold water,
10 central heating, low-temperature floor-heating and floor-cooling. Clearly, other fields in which a fluid - water but also other hydraulic fluids - is sent to a manifold before being distributed to different parts of a hydraulic system are also relevant.
15

In a hydraulic installation, there are generally two manifolds. One manifold receives the fluid from a source and distributes it to different parts of the hydraulic system, while the other manifold collects the
20 hydraulic fluid arriving from the different parts of the hydraulic system to discharge or return it to source. The manifolds in such situations are generally mounted in a cabinet or service shaft. Of course, other positions for these manifolds are possible.
25

As a rule, the manifolds are clamped in a cabinet, or the like, with the aid of collars. Each collar is made of two parts, half-rings or yokes, connected together by two screws. One part is clamped to a supporting
30 plate while the other part and the two screws are separate elements. A fitter must therefore assemble a half-ring or a yoke and two screws in order to be able to fix a manifold in position. Then, to fix the manifold in position, he must fit the half-ring or the
35 yoke on the component clamped to the support and then tighten the two screws.

It is an object of the present invention to provide a manifold clamp that offers easier mounting than the clamps (collars) of the prior art.

- 5 To this end, the device that it proposes is a clamp for a manifold for fluid distribution comprising a supporting plate for holding the manifold.

According to the invention, at least one pin, into
10 which a screw is screwed at right angles, is mounted on the supporting plate.

In this way it is a simple matter to place the manifold
15 in position and pivot the pin to bring the screw in a housing provided for this purpose on the manifold. On then tightening the screw, the manifold is clamped.

For preference, each pivoting screw is captive-mounted.
The screw is thus integral with the clamp and cannot
20 escape. The fitter is therefore certain to have the necessary screw to hand for clamping the manifold.

For clamping a manifold, two pivoting screws can be provided on either side. Each screw is thus engaged on
25 one side of the manifold that is being clamped. It is equally possible to provide only one screw when the manifold is fastened, at least locally, against a wall. In order that mounting can be done easily under all circumstances and with the greatest possible ease, the
30 clamp according to the invention advantageously comprises a pivoting screw and, opposite this pivoting screw, a fixed clamping tab. A manifold to be clamped is then positioned against the clamping tab and the screw is pivoted and tightened to hold the manifold in
35 position. In this embodiment, the clamping tab advantageously includes a central portion of reduced width for locating between two clamping arms of a manifold. This embodiment holds the manifold better.

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A double clamp according to the invention is in the form of a bent metal strip, at the two ends of which is a clamp as described above.

5 The present invention also relates to a fluid-distribution manifold comprising a tubular body having a longitudinal axis with at least one radial outlet, the manifold being characterized in that it comprises on two opposite faces, two clamping yokes, each
10 comprising a base attached to the body of the manifold and two arms extending in an essentially transverse direction. This manifold can therefore be clamped equally well by a clamp according to the invention that comprises a clamping tab and a pivoting screw as by a
15 device comprising two pivoting screws.

Each yoke is for example U-sectioned and extends along an axis perpendicular to the longitudinal axis of the manifold and to the radial outlet(s) of this manifold.

20 Each yoke preferably has two notches at one end to take a clamping tab, the latter exerting, when fitted, a stress on the yoke toward the supporting plate.

25 Lastly, the invention also relates to a module for a fluid-distribution manifold, comprising a tubular body extending along a first axis in which at least one radial outlet is made, the module being characterized in that it comprises on two opposite faces, two
30 clamping yokes, each comprising a base attached to the tubular body and two arms extending in an essentially transverse direction with respect to the first axis.

On this module, each yoke advantageously is U-sectioned
35 and extends along an axis perpendicular to the first axis of the module and to the radial outlet(s) of this module.

Each yoke preferably has two notches at one end to take a clamping tab, the latter exerting, when fitted, a stress on the yoke toward the supporting plate.

5 However, a clear understanding of the invention will be gained from the description which follows, with reference to the accompanying schematic drawing, showing by way of non-restrictive example, a preferred embodiment of a clamp according to the invention.

10 Figure 1 is a perspective view showing a clamp according to the invention and a module of a manifold before the manifold is mounted, and

15 Figure 2 is a front view of a clamp according to the invention and of two manifolds.

Figure 1 shows a clamp according to the invention and a module 2 of a fluid-distribution manifold.

20 The clamp is in the form of a plate consisting of a bent metal strip 4. Here, it resembles a tray, at either edge of which is an approximately horizontal flat arm 6. Each of these flat arms is designed to hold
25 a module 2. At each end of the strip 4, which corresponds also to one end of each flat arm 6, is a clamping tab 8. The latter extends vertically from the edge of the flat arm 6, at right angles thereto. This clamping tab 8 takes the form of a rectangular strip
30 with a narrowing 10 occupying a height H. This narrowing 10 consists of a portion of reduced width.

Facing each clamping tab 8, on the opposite edge of the flat arm 6, is a screw 12 mounted in a pivoting manner.
35 It is supported by a pin 14, to which it is perpendicular, the pin 14 itself being mounted in bearings 16 formed in the strip 4. The pin 14 is a solid circular cylindrical rod with a transverse tapped hole through its middle to take the screw 12. The pin

PAGES 20 - 60

14 is mounted transversely relative to the strip 4. The bearings 16 are made by local cutting and bending of the strip 4. Longitudinal slits are made so as to form metal bands. The central metal band is chopped out. The 5 bearings 16 are formed by bending the other metal bands, alternately down and up, to create a housing for the pin 14. The pin 14 is then inserted between the bearings 16, and the screw 12 is screwed into the tapped hole provided for this purpose in the pin 14. 10 The pin 14 is thus in a horizontal plane and the screw can pivot into a vertical plane. In a pivoted position, the screw is opposite the clamping tab 8.

15 It is possible to make the screw captive. So, for example, using a punch, the free end of the threaded part of the screw can be expanded. It is thus no longer possible to remove the screw from the pin 14. It is also possible to simply place a nut on the threaded end of the screw after the screw has been inserted through 20 the tapped hole of the pin 14.

The module 2 consists essentially of a body 18 molded from synthetic material. This body 18 is a tubular body of axis 20 having two radial outlets 22. Water, or some 25 other hydraulic liquid, arrives, for example, in the module 2 along the axis 20 and departs through an outlet 22 at right angles to this axis 20. The pin 14 is approximately parallel to the axis 20 of the module 2 while the clamping tab 8 extends at right angles both 30 to the axis 20 and to the axis of the radial outlet 22.

At one end (on the right in figure 1), the tubular body 18 has a male connector 24. The other end of the module 2 has a female connector 26 designed to take a male 35 connector 24 of another module 2.

At the male-connector end 24, the tubular body 18 has two diametrically opposite lugs 28. These lugs 28 each contain a bore 30 that extends in a plane perpendicular

to the axis 20. At the other end of the tubular body 18, that is to say at the female-connector end 26, the module 2 has two projections 32 projecting longitudinally from the tubular body 18. At each end of 5 each projection 32 is a bore 34. These bores 34 are parallel to the bores 30 formed in the lugs 28. These bores 34 and 30 are located in such a way that when a male connector 24 of one module 2 is inserted into a female connector 26 of another module 2, these bores 30 10 and 34 will be aligned. The two modules 2 can then be fastened together with the aid of a clasp in the form of a stirrup, not shown in the drawing.

Parallel to the lugs 28, the tubular body 18 also 15 carries two clamping yokes 36. These are each in the form of a component of constant U section. The length of this constant-section component is less than the height H of the narrowing 10 of the clamping tab 8. The clamping yoke is an integral part of the molding of the 20 tubular body 18. This yoke has a base 38 connected to the tubular body 18 and two arms 40 that extend generally in a transverse plane relative to the axis 20 of the tubular body 18. The two clamping yokes 36 are symmetrical about the axis 20 of the module 2.

25 The module 2, or a manifold incorporating this module 2, is then mounted in the following manner.

A clamping tab 8 is first inserted into a clamping yoke 30 36 as shown on the right in figure 2. A slight inclination of the module or of the manifold may be necessary for this purpose. The manifold, or the module 2, is then rested on the flat arm 6 of the clamp. The narrowing 10 of the clamping tab 8 is located in such a 35 way that the clamping yoke 36 is level with this narrowing 10. For more secure clamping, two notches 42 may be provided at the upper end of the clamping yoke 36, as shown in figure 1. In this way the enlarged upper end of the clamping tab 8 can be housed in the

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notches 42. The module 2 or the manifold is thus more firmly immobilized. The relative position of the narrowing 10 and of the clamping yoke 36, and also the depth of the notches 42, means that the module 2
5 remains in an inclined position, as shown on the right in figure 2 if it is not pressed firmly on to the flat arm 6 of the strip 4. Once the module 2 or the manifold is placed on the flat arm 6, the screw 12 is pivoted and takes its place in the other clamping yoke 36. The
10 screw 12 is then simply tightened to give an excellent clamping of the module 2 or of the manifold of which it is a part. When the screw 12 is tightened, the module is pressed against the flat arm 6. There is therefore an elastic stress in the clamping tab 8 on the clamping
15 yoke 36 which keeps the module in position on the flat arm 6. A force acting on both sides of the module 2, through the screw 12 and through the tab 8, ensures that the module 2 is securely held on the clamp according to the invention. The left-hand side of
20 figure 2 shows a manifold clamped to a flat arm 6. The module 2 is here resting flat on the flat arm 6.

As can be seen, this fitting is very simple to carry out. There is no need to hunt about for separate screws
25 and components. The module or manifold has simply to be correctly positioned and a screw pivoted and then tightened.

As shown in figure 2, a bracket 44 can be screwed to the clamp according to the invention. This assembly is then for example mounted in a cabinet or service shaft by snap action or any other means.

As is self-evident, the invention is not limited to the embodiment described above by way of non-restrictive example; on the contrary, it encompasses all alternative embodiments within the scope of the claims below.

Thus for example, to clamp a manifold, or a manifold module, two pivoting screws could be provided, one as described above and the other in the place of the clamping tab. In certain particular cases, a single
5 pivoting screw may be found to be sufficient. Similarly, each screw could be screwed not directly into a pin but into a component integral with the pin.

The invention can be applied to any type of manifold,
10 whether of modular design or otherwise, and made of synthetic or metallic material, for any type of application. If the manifold is composed of modules, the latter may of course differ from that described above by way of example.

PRINTED IN U.S.A. 1968

- 9 -

CLAIMS

1. Clamp for a manifold for fluid distribution comprising a supporting plate (6) for holding the manifold, the clamp being characterized in that at least one pin (14), into which a screw is screwed at right angles, is mounted on the supporting plate.
- 10 2. Clamp according to Claim 1, characterized in that each pivoting screw (12) is captive-mounted.
- 15 3. Clamp according to either of Claims 1 and 2, characterized in that it comprises a pivoting screw (12) and, opposite this pivoting screw, a fixed clamping tab (8).
- 20 4. Clamp according to Claim 3, characterized in that the clamping tab (8) includes a central portion (10) of reduced width for locating between two clamping arms (40) of a manifold.
- 25 5. Double clamp, characterized in that it is in the form of a bent metal strip (4), at the two ends of which is a clamp according to one of Claims 1 to 4.
- 30 6. Fluid-distribution manifold comprising a tubular body (18) having a longitudinal axis (20) with at least one radial outlet (22), the manifold being characterized in that it comprises on two opposite faces, two clamping yokes (36), each comprising a base (38) attached to the body (18) of the manifold and two arms (40) extending in an essentially transverse direction.
- 35 7. Manifold according to Claim 6, characterized in that each yoke (36) is of constant U section and

extends along an axis perpendicular to the longitudinal axis (20) of the manifold and to the radial outlet(s) (22) of this manifold.

- 5 8. Manifold according to Claim 7, characterized in that each yoke (36) has two notches (42) at one end to take a clamping tab (8), the latter exerting, when fitted, a stress on the manifold toward the supporting plate (6).

10

9. Module (2) for a fluid-distribution manifold, comprising a tubular body (18) extending along a first axis (20) in which at least one radial outlet (22) is made, the module being characterized in that it comprises on two opposite faces, two clamping yokes (36), each comprising a base (38) attached to the tubular body (18) and two arms (40) extending in an essentially transverse direction with respect to the first axis (20).

20

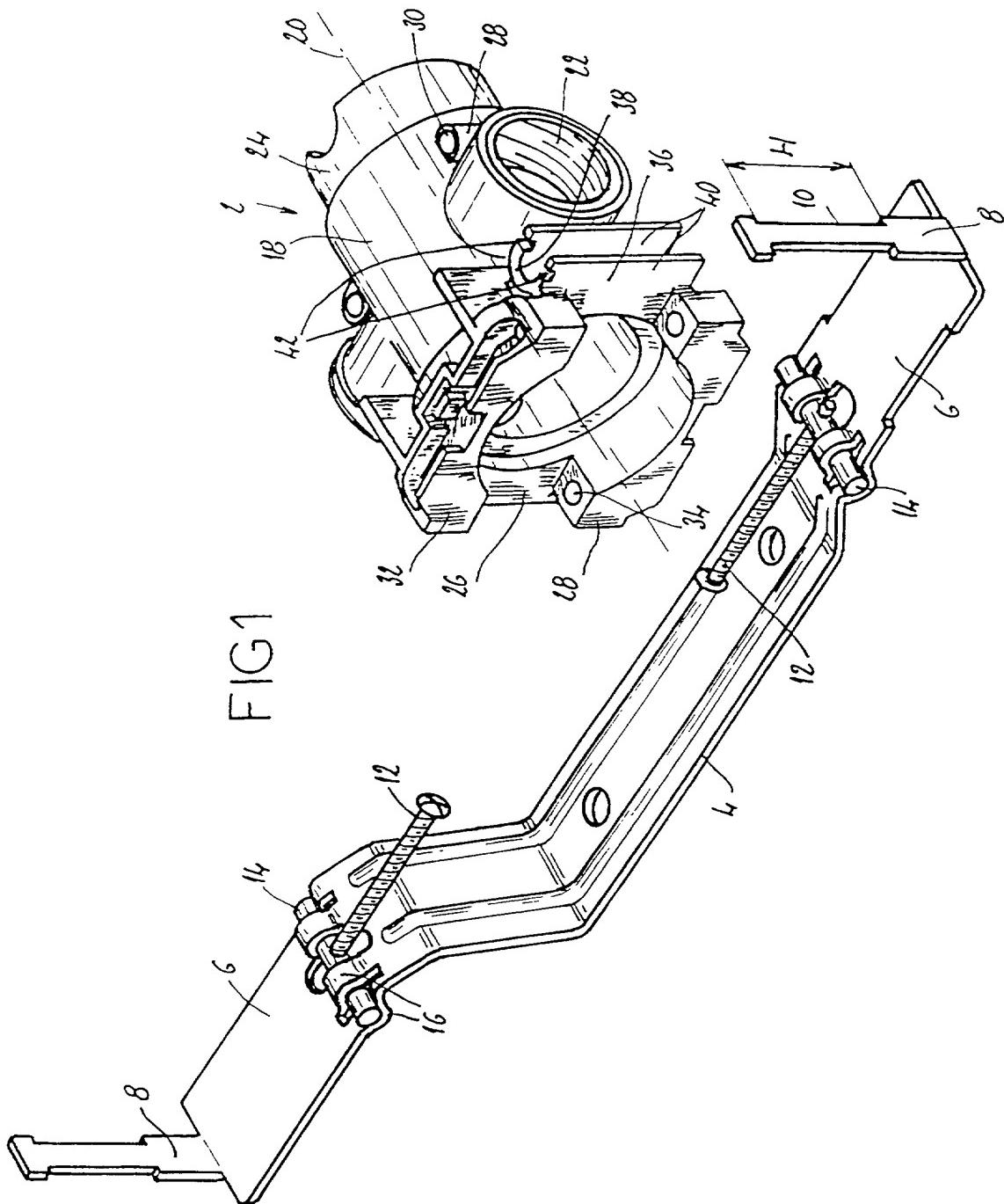
10. Module (2) according to Claim 9, characterized in that each yoke (36) is U-sectioned and extends along an axis perpendicular to the first axis (20) of the module (2) and to the radial outlet(s) (22) of this module.

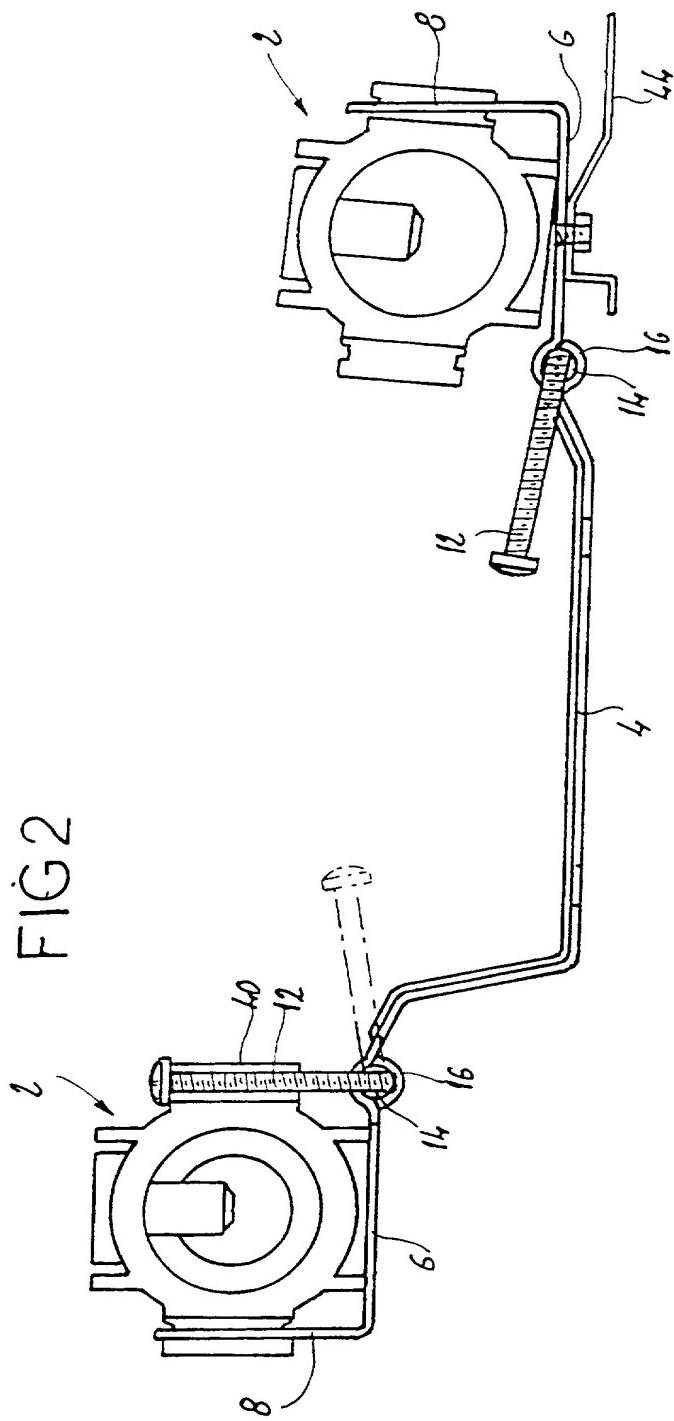
25

11. Module (2) according to Claim 10, characterized in that each yoke (36) has two notches (42) at one end to take a clamping tab (8), the latter exerting, when fitted, a stress on the module toward the supporting plate (6).

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**DECLARATION AND POWER OF ATTORNEY
UNDER 35 USC §371(c)(4) FOR
PCT APPLICATION FOR UNITED STATES PATENT**

As a below named inventor, I hereby declare that:
my residence, post office address and citizenship are as stated below under my name;

I verily believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought, namely the invention entitled: DEVICE FOR FIXING A MANIFOLD FOR FLUID DISTRIBUTION

described and claimed in international application number PCT/FR00/03084 filed November 6, 2000.

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations §1.56.

Under Title 35, U.S. Code §119, the priority benefits of the following foreign application(s) filed by me or my legal representatives or assigns within one year prior to my international application are hereby claimed:

French Patent Application No. 99.14251 filed November 8, 1999.

The following application(s) for patent or inventor's certificate on this invention were filed in countries foreign to the United States of America either (a) more than one year prior to my international application, or (b) before the filing date of the above-named foreign priority application(s):

I hereby appoint the following as my attorneys of record with full power of substitution and revocation to prosecute this application and to transact all business in the Patent Office:

(1) James A. Olliff, Reg. No. 27,075; William P. Berridge, Reg. No. 30,024;
Kirk M. Hudson, Reg. No. 27,562; Thomas J. Pardini, Reg. No. 30,411;
Edward P. Walker, Reg. No. 31,450; Robert A. Miller, Reg. No. 32,771;
Mario A. Costantino, Reg. No. 33,565; Stephen J. Roe, Reg. No. 34,463;
Joel S. Armstrong, Reg. No. 36,430; Christopher W. Brown, Reg. No. 38,025; and
Richard E. Rice, Reg. No. 31,560.

ALL CORRESPONDENCE IN CONNECTION WITH THIS APPLICATION SHOULD BE SENT TO OLIFF & BERRIDGE, PLC, P.O. BOX 19928, ALEXANDRIA, VIRGINIA 22320, TELEPHONE (703) 836-6400.

I hereby declare that I have reviewed and understand the contents of this Declaration, and that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| | | | |
|---|---|----------------------------------|---------------|
| 1 | Typewritten Full Name of Sole or First Inventor | <u>Michel</u> | <u>BRUVRY</u> |
| 2 | Inventor's Signature | <u>Michel</u> | <u>BRUVRY</u> |
| 3 | Date of Signature | <u>beillet</u> | <u>18</u> |
| | Month | <u>JRX</u> | Year |
| | Residence: | <u>Hautvilliers</u> | France |
| | City | <u>State or Province</u> | Country |
| | Citizenship: | <u>France</u> | |
| | Post Office Address: (Insert complete mailing address, including country) | <u>70 La Ruellette</u> | |
| | | <u>80132 HAUTVILLIERS France</u> | |

Note to Inventor: Please sign name on line 2 exactly as it appears in line 1 and insert the actual date of signing on line 3.

IF THERE IS MORE THAN ONE INVENTOR USE PAGE 2 AND PLACE AN "X" HERE
(Discard this page in a sole inventor application)